RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/664,421A_
Source: _/Fw16_
Date Processed by STIC: _11/3/06_

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IFW16

RAW SEQUENCE LISTING   DATE: 11/03/2006
PATENT APPLICATION: US/10/664,421A   TIME: 17:12:55

.Input Set : A:\39363703.APP
Output Set: N:\CRF4\11032006\J664421A.raw

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 3 <110> APPLICANT: BREMER, RYAN
 4        IBRAHIM, PRABHA
 5        KUMAR, ABHINAV
 6        MANDIYAN, VALSAN
 7        MILBURN, MICHAEL V.
 9 <120> TITLE OF INVENTION: CRYSTAL STRUCTURE OF PIM-1 KINASE
11 <130> FILE REFERENCE: 039363/0703
13 <140> CURRENT APPLICATION NUMBER: 10/664,421A
14 <141> CURRENT FILING DATE: 2003-09-16
16 <150> PRIOR APPLICATION NUMBER: 60/412,341
17 <151> PRIOR FILING DATE: 2002-09-20
19 <150> PRIOR APPLICATION NUMBER: 60/411,398
20 <151> PRIOR FILING DATE: 2002-09-16
22 <160> NUMBER OF SEQ ID NOS: 173
24 <170> SOFTWARE: PatentIn Ver. 3.3
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 313
28 <212> TYPE: PRT
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39          35                  40                  45
41 Phe Gly Ser Val Tyr Ser Gly Ile Arg Val Ser Asp Asn Leu Pro Val
42      50                  55                  60
44 Ala Ile Lys His Val Glu Lys Asp Arg Ile Ser Asp Trp Gly Glu Leu
45  65                  70                  75                  80
47 Pro Asn Gly Thr Arg Val Pro Met Glu Val Val Leu Leu Lys Lys Val
48              85                  90                  95
50 Ser Ser Gly Phe Ser Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Arg
51              100                 105                 110
53 Pro Asp Ser Phe Val Leu Ile Leu Glu Arg Pro Glu Pro Val Gln Asp
54          115                 120                 125
56 Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Gln Glu Glu Leu Ala
57      130                 135                 140
59 Arg Ser Phe Phe Trp Gln Val Leu Glu Ala Val Arg His Cys His Asn
60 145                 150                 155                 160
62 Cys Gly Val Leu His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp
63 :               165                 170                 175
65 Leu Asn Arg Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu
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68 Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser
69          195               200               205
71 Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg Ser Ala Ala
72      210               215               220
74 Val Trp Ser Leu Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile
75 225                   230               235               240
77 Pro Phe Glu His Asp Glu Glu Ile Ile Arg Gly Gln Val Phe Phe Arg
78              245               250               255
80 Gln Arg Val Ser Ser Glu Cys Gln His Leu Ile Arg Trp Cys Leu Ala
81          260               265               270
83 Leu Arg Pro Ser Asp Arg Pro Thr Phe Glu Glu Ile Gln Asn His Pro
84      275               280               285
86 Trp Met Gln Asp Val Leu Leu Pro Gln Glu Thr Ala Glu Ile His Leu
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89 His Ser Leu Ser Pro Gly Pro Ser Lys
90 305               310
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94 <211> LENGTH: 313
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103              20               25                30
105 Pro Leu Glu Ser Gln Tyr Gln Val Gly Pro Leu Leu Gly Ser Gly Gly
106          35               40               45
108 Phe Gly Ser Val Tyr Ser Gly Ile Arg Val Ala Asp Asn Leu Pro Val
109      50               55               60
111 Ala Ile Lys His Val Glu Lys Asp Arg Ile Ser Asp Trp Gly Glu Leu
112 65               70               75               80
114 Pro Asn Gly Thr Arg Val Pro Met Glu Val Val Leu Leu Lys Lys Val
115              85               90               95
117 Ser Ser Asp Phe Ser Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Arg
118          100               105               110
120 Pro Asp Ser Phe Val Leu Ile Leu Glu Arg Pro Glu Pro Val Gln Asp
121      115               120               125
123 Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Gln Glu Asp Leu Ala
124      130               135               140
126 Arg Gly Phe Phe Trp Gln Val Leu Glu Ala Val Arg His Cys His Asn
127 145               150               155               160
129 Cys Gly Val Leu His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp
130              165               170               175
132 Leu Ser Arg Gly Glu Ile Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu
133          180               185               190
135 Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser
136          195               200               205
138 Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg Ser Ala Ala
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Input Set : A:\39363703.APP
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142 225                      230              235              240
144 Pro Phe Glu His Asp Glu Glu Ile Ile Lys Gly Gln Val Phe Phe Arg
145                      245              250              255
147 Gln Thr Val Ser Ser Glu Cys Gln His Leu Ile Lys Trp Cys Leu Ser
148                      260              265              270
150 Leu Arg Pro Ser Asp Arg Pro Ser Phe Glu Glu Ile Arg Asn His Pro
151         275              280              285
153 Trp Met Gln Gly Asp Leu Leu Pro Gln Ala Ala Ser Glu Ile His Leu
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156 His Ser Leu Ser Pro Gly Ser Ser Lys
157 305                      310
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172 Arg Leu Gly Pro Leu Leu Gly Lys Gly Gly Phe Gly Thr Val Phe Ala
173             35              40              45
175 Gly His Arg Leu Thr Asp Arg Leu Gln Val Ala Ile Lys Val Ile Pro
176   .  50              55              60
178 Arg Asn Arg Val Leu Gly Trp Ser Pro Leu Ser Asp Ser Val Thr Cys
179  65              70              75              80
181 Pro Leu Glu Val Ala Leu Leu Trp Lys Val Gly Ala Gly Gly Gly His
182             85              90              95
184 Pro Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Thr Gln Glu Gly Phe
185             100             105             110
187 Met Leu Val Leu Glu Arg Pro Leu Pro Ala Gln Asp Leu Phe Asp Tyr
188         115             120             125
190 Ile Thr Glu Lys Gly Pro Leu Gly Glu Gly Pro Ser Arg Cys Phe Phe
191     130             135             140
193 Gly Gln Val Val Ala Ala Ile Gln His Cys His Ser Arg Gly Val Val
194 145             150             155             160
196 His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp Leu Arg Arg Gly
197             165             170             175
199 Cys Ala Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu Leu His Asp Glu
200             180             185             190
202 Pro Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser Pro Pro Glu Trp
203         195             200             205
205 Ile Ser Arg His Gln Tyr His Ala Leu Pro Ala Thr Val Trp Ser Leu
206     210             215             220
208 Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile Pro Phe Glu Arg
209 225             230             235             240
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214 Pro Asp Cys Cys Ala Leu Ile Arg Arg Cys Leu Ala Pro Lys Pro Ser
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217 Ser Arg Pro Ser Leu Glu Glu Ile Leu Leu Asp Pro Trp Met Gln Thr
218              275                    280                    285
220 Pro Ala Glu Asp Val Thr Pro Gln Pro Leu Gln Arg Arg Pro Cys Pro
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240              20                    25                    30
242 Arg Leu Gly Pro Leu Leu Gly Lys Gly Gly Phe Gly Thr Val Phe Ala
243         35                    40                    45
245 Gly His Arg Val Thr Asp Arg Arg Gln Val Ala Ile Lys Val Ile Ser
246    50                    55                    60
248 Arg Asn Arg Val Leu Gly Trp Ser Thr Val Ser Asp Ser Val Thr Cys
249 65                    70                    75                    80
251 Pro Leu Glu Val Ala Leu Leu Trp Lys Val Gly Glu Gly Asn Gly His
252              85                    90                    95
254 Pro Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Thr Pro Glu Gly Phe
255              100                    105                    110
257 Met Leu Val Leu Glu Arg Pro Met Pro Ala Gln Asp Leu Phe Asp Tyr
258         115                    120                    125
260 Ile Thr Glu Lys Gly Pro Leu Gly Glu Ser Cys Ser Arg Ser Phe Phe
261    130                    135                    140
263 Thr Gln Val Val Ala Ala Val Gln His Cys His Ala Arg Gly Val Val
264 145                    150                    155                    160
266 His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp Leu Cys Arg Gly
267              165                    170                    175
269 Ser Ile Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu Leu His Asp Glu
270              180                    185                    190
272 Pro Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser Pro Pro Glu Trp
273         195                    200                    205
275 Ile Ser Arg His Gln Tyr His Ala Leu Pro Ala Thr Val Trp Ser Leu
276    210                    215                    220
278 Gly Val Leu Leu Tyr Asp Met Val Cys Gly Asp Ile Pro Phe Glu Arg
279 225                    230                    235                    240
281 Asp Gln Glu Ile Leu Glu Ala Glu Leu His Phe Pro Ala His Val Ser
282              245                    250                    255
284 Pro Asp Cys Cys Ala Leu Ile Arg Arg Cys Leu Ala Pro Lys Pro Cys
285              260                    265                    270
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287 Ser Arg Pro Ser Leu Glu Glu Ile Leu Leu Asp Pro Trp Met Gln Ser
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294 305                 310
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307             20                 25                 30
309 Gly Leu Pro Val Ala Val Lys His Val Val Lys Glu Arg Val Thr Glu
310         35                 40                 45
312 Trp Gly Ser Leu Gly Gly Ala Thr Val Pro Leu Glu Val Val Leu Leu
313     50                 55                 60
315 Arg Lys Val Gly Ala Ala Gly Gly Ala Arg Gly Val Ile Arg Leu Leu
316 65                 70                 75                 80
318 Asp Trp Phe Glu Arg Pro Asp Gly Phe Leu Leu Val Leu Glu Arg Pro
319             85                 90                 95
321 Glu Pro Ala Gln Asp Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu
322             100                 105                 110
324 Asp Glu Pro Leu Ala Arg Arg Phe Phe Ala Gln Val Leu Ala Ala Val
325         115                 120                 125
327 Arg His Cys His Ser Cys Gly Val Val His Arg Asp Ile Lys Asp Glu
328     130                 135                 140
330 Asn Leu Leu Val Asp Leu Arg Ser Gly Glu Leu Lys Leu Ile Asp Phe
331 145                 150                 155                 160
333 Gly Ser Gly Ala Leu Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly
334             165                 170                 175
336 Thr Arg Val Tyr Ser Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His
337         180                 185                 190
339 Gly Arg Ser Ala Thr Val Trp Ser Leu Gly Val Leu Leu Tyr Asp Met
340     195                 200                 205
342 Val Cys Gly Asp Ile Pro Phe Glu Gln Asp Glu Glu Ile Leu Arg Gly
343     210                 215                 220
345 Arg Leu Leu Phe Arg Arg Arg Val Ser Pro Glu Cys Gln Gln Leu Ile
346 225                 230                 235                 240
348 Arg Trp Cys Leu Ser Leu Arg Pro Ser Glu Arg Pro Ser Leu Asp Gln
349             245                 250                 255
351 Ile Ala Ala His Pro Trp Met Leu Gly Ala Asp Gly Gly Ala Pro Glu
352         260                 265                 270
354 Ser Cys Asp Leu Arg Leu Cys Thr Leu Asp Pro Asp Asp Val Ala Ser
355         275                 280                 285
357 Thr Thr Ser Ser Ser Glu Ser Leu
358     290                 295
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/03/2006
PATENT APPLICATION: US/10/664,421A   TIME: 17:12:56

Input Set : **A:\39363703.APP**
Output Set: **N:\CRF4\11032006\J664421A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:20; Xaa Pos. 312
Seq#:29; Xaa Pos. 174,178,179

VERIFICATION SUMMARY   DATE: 11/03/2006
PATENT APPLICATION: US/10/664,421A   TIME: 17:12:56

            Input Set : A:\39363703.APP
            Output Set: N:\CRF4\11032006\J664421A.raw

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L:2010 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:160
M:341 Repeated in SeqNo=29